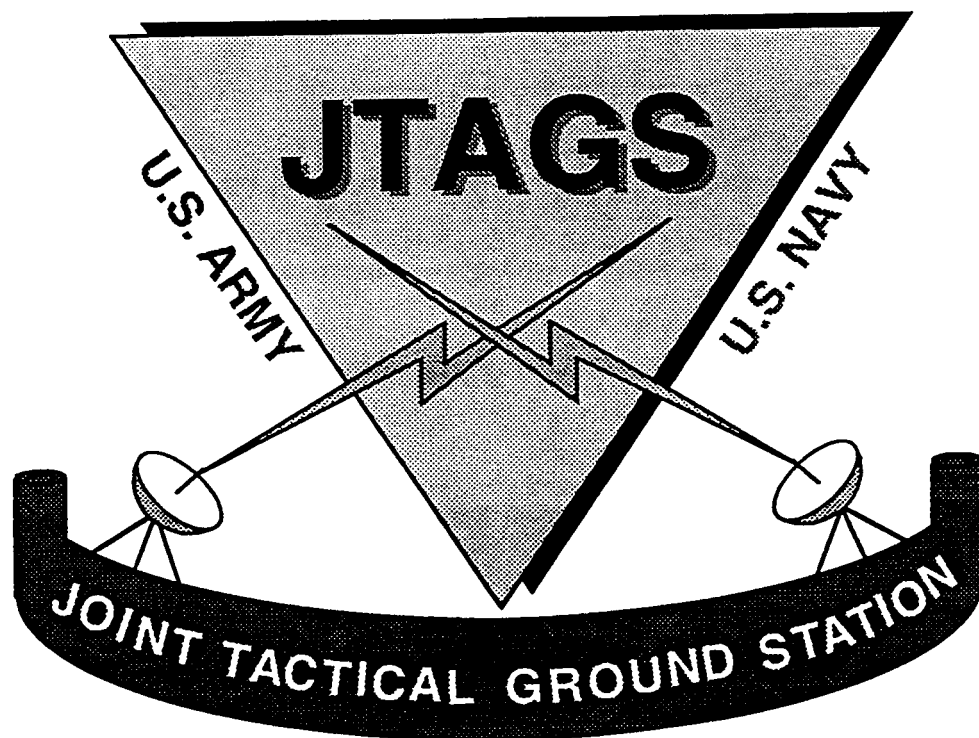


SYSTEM TRAINING PLAN

FOR

JOINT TACTICAL GROUND STATION



DATE 22 JULY 1996
VERSION: 2 UPDATED
U.S. ARMY AIR DEFENSE
ARTILLERY SCHOOL
DIRECTORATE OF
TRAINING MANAGEMENT
FORT BLISS, TEXAS
79916-0002

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SYSTEM TRAINING PLAN
FOR
JOINT TACTICAL GROUND STATION

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**SYSTEM TRAINING PLAN (STRAP)
FOR
JOINT TACTICAL GROUND STATION**

1. SYSTEM DESCRIPTION:

a. The Joint Tactical Ground Station (JTAGS) is a joint forces effort to field a tactical ground station. JTAGS provides real time, direct downlink from Department of Defense (DOD) sensors. The system provides early warning and cueing information on tactical ballistic missiles (TBM), slow walkers, and other events of interest in near-real time. Communication processors organic to JTAGS, format messages which conform to the protocols of available communication systems throughout the theater. The Army Operational concept is to deploy a JTAGS detachment to support the theater during wartime. However, the peacetime deployment concept is one section per theater. A detachment consists of a detachment headquarters and two sections. JTAGS will be deployed to the CORPS/Theater level with connectivity to users. In wartime, JTAGS will be under the tactical control (TACON) of theater Commander-in-Chiefs (CINCs). The JTAGS system will consist of an Infrared (IR) Pre-Processor, Communications equipment, Data Processor, Man-Machine-Interface (MMI) and Shelter. The shelter is transportable by cargo aircraft, ship or flatbed trailer.¹

b. Army Modernization Information Memorandum (AMIM) number: (TBD)

c. New Equipment Training Plan (NETP) number: MIC93005

d. First Unit Equipped (FUE) date: 2QFY97

2. ASSUMPTIONS:

a. There will be 5 JTAGS systems fielded to the Army.

b. Personnel provided for training will have proper MOS to start training.

c. A new MOS is not required to maintain the system.

¹ System Manprint Management Plan (SMMP) for Joint Tactical Ground Station (JTAGS) Initial Draft March 1993

d. Unit will sustain proficiency and conduct refresher training utilizing the embedded training software.

e. Training development resources will be provided to develop the required products.

3. TRAINING CONCEPT:

a. General. The U.S. Army Air Defense Artillery School (USAADASCH) is the proponent for the development of this plan in conjunction with other TRADOC schools.

b. Individual training during fielding will be conducted in three phases.

(1) Phase one is the JTAGS Initial Qualification Training (IQT) conducted by the USAF 533RD, the training is five weeks in duration and is conducted at Vandenberg AFB, CA. This phase provides operators with the necessary background to understand the operation and input provided to JTAGS by the Defense Support Program (DSP).

(2) The second phase of training is a three week JTAGS peculiar operator and maintenance course conducted by the contractor during fielding. A contractor developed Exportable Training Package will be delivered to the unit during NET.

(3) Phase three training is collective training and will be conducted by the JTAGS unit. Collective training will be two weeks in duration and it includes training requirements for crews to employ the system using correct doctrine, tactics and techniques.

c. Replacement training will be conducted at Ft. Bliss, TX and will be nine weeks in duration. Course instruction includes the JTAGS operational tactical software and maintenance. The course consists of, geography, missile characteristics, system initialization, console operations, communications, sensor input, failure/restoral, emergency procedures, march order, emplacement, intialization, fault dection, fault isolation, parts location, remove/replace procedures, and PMCS.

d. Combined Arms Training Strategy (CATS):

(1) JTAGS CATS captures training events, frequency of occurrence, and supporting resources. At the senior level, it assists leaders in justifying resources based on how sections train. At the section level, it provides a recommended method to maintain soldier and unit proficiency. Gunnery tables provide mandatory qualification standards and training strategies for JTAGS. These tables focus on preparing the individual to perform as part of a crew to accomplish the unit mission. Standards outlined in the MTPS and or STPs are the minimum acceptable levels of performance. Commanders have flexibility in these strategies and may integrate command and control, maneuver, and survival and sustainment as they see fit.

(2) Training prepares soldiers, leaders, and units to fight and readies them to execute the strategic mission without additional training or lengthy training adjustment periods. Training is--

(a) Battle-focused, derived from strategic or crisis scenarios and based on CINCSpace approved doctrine.

(b) Performance-oriented and emphasizes hands-on practice in the skills and performances required for soldiers and units to achieve and sustain proficiency on individual and collective tasks to established standards in accordance with Army Training and Evaluation Plan/Mission Training Plan (ARTEP/MTP), Drill Books (DBs), Officer Foundation Standards (OFS), Mission Essential Task List (METL), Soldiers Training Publications (STP).

(c) Sequential and progressive, and soldiers must demonstrate performance to standards before advancing to the next higher level of training.

e. The training of soldiers, leaders, and units is tough, realistic, and intellectually and physically challenging. It excites, motivates, and develops competence and confidence.

f. Integral parts of training are--

(1) Maintenance and operation of equipment.

(2) Safety to prevent injury or death of personnel and damage or destruction of JTAGS system equipment.

(3) Focus on assuring mission goals are accomplished, i.e. warning and cueing.

g. Training implementation capitalizes on technology by using embedded trainers.

h. Currently, Reserve Component (RC) is not scheduled to receive JTAGS training.

4. TRAINING CONSTRAINTS

a. Current fielding plan, one section per theater, (during peace time) may have an impact on sustainment training. System will be used for 24 hour operation leaving no time available for training.

5. NEW EQUIPMENT TRAINING STRATEGY SUMMARY:

a. General.

(1) The NET is the means to transfer system knowledge from the materiel developer to the institutional trainers for POI development, to inform instructors and other key personnel, and to instruct the JTAGS users and/or operators.² NET will be conducted in two phases. Phase I training will include Staff Planners and the Technical Training courses, which will be prepared and taught by the system prime contractor(s) at locations to be determined. Phase II training will be conducted as part of the materiel fielding process by NETT at the most cost effective location. Contractor-conducted training courses will include the technical manuals, training materials, POIs, and lesson plans required for the conduct of the training courses. The contractor(s) will develop an exportable training package based on the NET materials. When the system is updated the exportable training package will also be updated by the materiel developer. Doctrine and tactics training (DTT) will be presented by the New Equipment Training Team (NETT). DTT places emphasis on employment, tactics and doctrine to ensure the JTAGS system is fully utilized. The NETT will provide copies of all NET materials to the unit to assist unit in starting a sustainment training program.

² Operational Requirements Document (ORD) for Joint Tactical Ground Station 8 Nov 93 pg 7 para 5c(3)(a).

(2) JTAGS equipment density, cost considerations and relative stability of the target audience within JTAGS units indicate it may be cost effective to place increased emphasis on contractor provided NET.

b. At a minimum, the following basic requirements for NET will be met:

(1) Staff Planners Course. The JTAGS contractor(s) will develop and implement a program oriented staff planners course to familiarize planners at all levels with the JTAGS program. The initial course will focus on senior staff personnel involved in the requirements generation and validation process. The course itself will require revisions as program changes are made and lessons learned from test and evaluation are incorporated. As a minimum, the courses will be given on an annual basis for the duration of the test program.

(2) Technical Training Course. A technical training course will be developed for each JTAGS Army MOS, and for Navy ratings required to operate and maintain the JTAGS system. Common modules or lessons may be applicable to more than one MOS or ratings; however, these courses will be system (equipment) rather than program oriented and will focus on achieving a given level of performance based on predetermined criteria. Contractors will train personnel to participate in all required development and test functions. Contractor personnel will be available to perform designated tasks and provide backup support to government test personnel. Multiple iterations are required. Technical training will be conducted in three phases as described in paragraph three.

(3) New Materiel Information Briefing Team (NMIBT). This NET consists of a package and/or briefing team. It will provide the gaining commanders and their staff with all essential information needed to facilitate fielding of JTAGS.

(4) New Equipment Training Team (NETT). The materiel developer will plan, fund, organize and field the NETT effort. The NETT effort is specified in AR 350-35, Army Modernization Training. The System Developer is responsible for fielding the system. The System Developer Materiel Fielding Team will be comprised of various functions including the NETT. The JTAGS NETT composition is TBD.

(a) The Materiel Developer is responsible to train the NETT members and to perform NET as part of materiel fielding.

This will assure that personnel are trained to operate and maintain JTACS, so it is both operational and sustainable. JTACS system equipment operation, maintenance, doctrine and tactical subjects will be taught by the NET team.

(b) Composition of the NET Team is currently TBD.

6. TRAINING DEVICE STRATEGY:

A non-system training devices is planned for institutional training. It will simulate the JTACS capabilities. The simulator will use the existing tactical software and provide a six-man station.

a. The JTACS system will require a high fidelity embedded operator training device.³ This embedded software training device will use the existing tactical JTACS hardware for organizational training. The trainer will be provided as an integral part of each JTACS system and used to achieve and maintain operator proficiency. Operator maintenance, operations training and training exercise data generation functions will be included in the embedded JTACS training device. With the embedded trainer, the operator will be able to enter the training mode whenever the system is operational. He will then have the ability to select either the "Operations Training Mode" the "Maintenance Training Mode" or the "Training Exercise Mode". Once the training mode has been selected, internally stored exercises may be run or other exercises may be loaded from external transportable media for execution. The operator stimulus provided by the embedded trainer will be the same as that provided by actual wartime data except that it will contain a training/exercise flag. This training/exercise flag will be a clear indicator that the data displayed, processed, or transmitted is NOT actual wartime data. While training scenarios are running the operator will be required to react to stimulus that is required by the tactical system. System responses to operator actions will also be the same in the training mode as in the tactical system. During training sessions, a recording will be made of all displays and actions. This recording will enable a training evaluation to be conducted subsequent to the training session. Upon completion of a training session the operator may conduct another training session, return to tactical mode, place system in standby, or power down system.

³ Operational Requirements Document (ORD) for Joint Tactical Ground Station 8 Nov 93 Pg E-1 para 2.

b. Training software documentation shall be provided for review.

c. System Hardware Requirements: Operators will need to operate some ancillary GFE, i.e. CTT-H3, 60kW generator, ECU equipment, Singars Radios, and silicon graphics hardware.

d. General Training Support Requirements: JTAGS will not require any unique training support items.

e. Training Device Requirements: All JTAGS training will be accomplished using tactical hardware. The JTAGS hardware/software will be capable of off-line generation of scenarios (operations and maintenance) for training, evaluation and testing of operators and supervisors. Specific maintenance tasks to be trained will be identified by the LSA.

f. MANPRINT Training Support. Operator and maintainer tasks will be achieved by the target audience without increasing the aptitude area (AA) score established for the targeted MOS, and will be achievable by those personnel in the 20% and above bracket in aptitude area of OF, EL, MM and GT.⁴

7. TRAINING TEST SUPPORT PACKAGE:

a. The development of the Training Test Support Package (TTSP) will involve directed contract efforts of USAADASCH, and the contractor. Specific package details, such as instructor requirements, POIs developed under current POIMM program, lesson plans, personnel selection criteria, and training data requirements are developed as JTAGS proceeds towards fielding. The TTSP is developed by the Combined Arms and Tactics Directorate (CATD) with input from the Directorate of Training Management.

b. The TTSP will use training materials developed by the JTAGS contractor(s). Training developers will assess contractor training materials to ensure training development parallels the JTAGS system.

⁴ Operational Requirements Document (ORD) for Joint Tactical Ground Station (JTAGS) Annex E.

c. USAADASCH CATD as the training proponent will certify that the content of the training course conforms with the standards identified in TRADOC Reg 73-1, by signing the Operational Test Readiness Statement (OTRS).

d. USAADASCH CATD will provide the final TTSP to support program milestone.

e. Training aids or simulators, developed by the contractor, will be evaluated before and during test player training and system testing. The TTSP will include a validation plan for embedded training devices.

8. SIGNIFICANT TRAINING ISSUES AT RISK:

None identified at this time.⁵

9. POST-FIELDING EVALUATION SUMMARY:

a. The materiel developer and the combat developer will assist the training developer in conducting a post fielding evaluation of the total training package, which includes individual, collective, and unit training. The results of this evaluation will be used as a basis for reassessing, revising and updating the total training system. Critical tasks will be reevaluated by materiel/combat developers. Training devices will be evaluated for effectiveness and modifications will be made to the hardware and software as required.

b. The Evaluation and Standardization Division of the Office, Chief of Air Defense Artillery, will coordinate evaluation of POIs, lesson plans, and personnel selection criteria, training aids, simulators and training devices. The Follow-On Evaluation (FOE) will be conducted not later than 6 months after the First Unit Equipped (FUE). A Branch Liaison Team (BLT) will visit the unit every 12-18 months, or as required, to determine if the training and training products of the unit are adequate to assure operator, and maintainer proficiency.

c. Data will be collected in the areas of student demographics, student profiles, instructional feedback information, and student performance.

⁵ Operational Requirements Document (ORD) for the Joint Tactical Ground Station (JTAGS) 8 Nov 1993, Annex E, para 3.

d. A Post Fielding Training Effectiveness Analysis (PFTEA), will be initiated and executed per AR 5-5, Studies Program, and TRADOC Regulation 350-4. Details will be outlined in a PFTEA study developed jointly by USAADASCH, USAOMMCS, and TRADOC Analysis Command (TRAC).

e. Analytical support will be provided by TRAC. Feedback from the PFTEA will assist the school's future fielding teams.

f. The schedule for conducting the JTAGS PFTEA is TBD. Funding requirements will be identified to TRADOC to support the PFTEA process.

UNIT/SUSTAINMENT TRAINING (TRADOC REG 351-9)		REQUIREMENT CONTROL SYMBOL ATTG-55		
LCSMM PHASE: Demonstration/Validation		SYSTEM: JOINT TACTICAL GROUND STATION (JTAGS)		
1. INDIVIDUAL TRAINING				
a. Strategy: Individual skills will be sustained through training during daily operations, crew drills, Operational Readiness Evaluations (OREs), Army Correspondence Course Program (ACCP), Army-Wide Training Literature Programs (ATLP), Field Manuals (Fms), Soldier Training Publications (STPs), and use of embedded trainers.				
b. Products required to sustain individual skills:				
PRODUCT	DATE REQUIRED	RESOURCE DOCUMENTS	RESPONSIBLE AGENCY	
Embedded Trainer "Operations Training"	2Q FY 97	TM	CONTRACTOR	
Embedded Trainer "Operator Maintenance"	2Q FY97	TM	CONTRACTOR	
Embedded Trainer "Training Exercise"	2Q FY 97	TM	CONTRACTOR	
Interactive Courseware (ICW)	N/A			
Soldiers Training Publications (STP)	2Q FY 97	44-14E-SM 44-14E-24-SMTG	USAADASCH	
Army Correspondence Course Program (ACCP)	N/A			
Site Equipment	2Q FY 97	TM	CONTRACTOR	
2. COLLECTIVE TRAINING				
a. Strategy: Collective skills necessary to employ the JTAGS system will be sustained through the applications of crew drills, Command Post Exercises (CPXs), Operational Readiness Evaluations (OREs), Army Training and Evaluation Program/Mission Training Plans (ARTEP/MTPs) and the use of embedded training capability.				

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Figure B-1, Unit/Sustainment Training (page 1 of 6)

UNIT/SUSTAINMENT TRAINING				
b. Products required to sustain individual skills:				
PRODUCT	DATE REQUIRED	RESOURCE DOCUMENTS	RESPONSIBLE AGENCY	
Embedded Trainer "Operations Training"	2Q FY 97	TM	CONTRACTOR	
Embedded Trainer "Operator Maintenance"	2Q FY 97	TM	CONTRACTOR	
Embedded Trainer "Training Exercise"	2Q FY 97	TM	CONTRACTOR	
Mission Training Plan (MTP)	2Q FY 97	MTP	USAADASCH	
Crew Drills	2Q FY 97	FMxxx	USAADASCH	
Site Equipment	2Q FY 97	TM	CONTRACTOR	

3. UNIQUE REQUIREMENTS UNITS MUST BE APPRAISED OF TO PREPARE FOR SYSTEM FIELDING AND EMPLOYMENT:
Operators will need to operate some ancillary GFE, i.e. CTT-H3, 60 Kw generator, ECU equipment, and silicon graphics hardware.

COMMENTS:

JOINT TACTICAL GROUND STATION SOLDIER TRAINING STRATEGY															
FREQUENCY (1)		EVENTS													
		PHYS TNG	FIRST AID	SGTs TIME (2)	MOS TNG	SDT	CTT	CTT TEST	CMT (3)	NBC TNG	MAINT TNG	LDR DEV TNG (4)	DRIVER TNG	WPNS QUAL (6)	LAND NAV (5)
DAILY	AC RC	X			X										
WEEKLY	AC RC														
MONTHLY	AC RC									X	X	X	X		
SEMI-ANNUALLY	AC RC														X
ANNUAL	AC RC		X					X	X					X	
BIANNUALLY	AC RC														
AS REQUIRED	AC RC					X									
RESOURCES															
OPTEMPO BASE EQUIP					X	X					X		X		
AMMUNITION															
TADSS					X						X				
TRAINING LAND															
TRAINING RANGES															
NOTES: 1. FREQUENCIES ARE BASED ON AVERAGE SOLDIER REQUIREMENTS, AREA MAY BE TRAINED MORE OFTEN BASED ON NCO FEEDBACK AND COMMANDERS ASSESSMENT TO SUPPORT METL PROFICIENCY. 2. SGTs TIME IS TIME ON UNIT TRAINING SCHEDULE FOR SERGEANTS TO CONDUCT INDIVIDUAL TRAINING TO SUPPORT METL. 3. CMT IS MANDATORY TRAINING IAW AR 350-1. 4. LEADERSHIP DEVELOPMENT INCLUDES OPD, NCOPD, CAREER COUNSELING, CIVILIAN EDUCATION SKILL, ETC. 5. BASIC USE OF AIMING CIRCLE AND COMPASS. 6. INDIVIDUAL AND CREW-SERVE WEAPON.															

Figure B-3, Unit/Sustainment Training (page 3 of 6)

JOINT TACTICAL GROUND STATION MANEUVER TRAINING STRATEGY																
LEVELS	EVENTS															
	DRILL	MAPEX	TEWT	CELL/SEC TNG	TOCEX	STAFFEX	CPX	FCX	STX	LOGEX	CFX	DEPEX	FTX	EXEVAL/CTC	JTX	CTX
CREW AC	100 (1) (2)															
SQUAD AC																
SECTION AC																
PLATOON AC																
BATTERY AC								QTRLY (3)	BI-MONTHLY (3)							
BATTALION AC			QTRLY	WKLY (1) (2)	MONTHLY	QTRLY	QTRLY				QTRLY (3)	SEMI-ANNUAL		ANNUAL (3) (4)	BI-MONTHLY (3)	ANNUAL
CRITICAL GATE	BASIC OPERATOR QUAL													ADV QUAL	INT BTRY QUAL	
RESOURCES																
OPTEMPO																
AMMO																
TADSS	(1) (2)		(1) (2)	(1) (2)	(2)	(1) (2)		(3)	(3)		(3)			(3)	(3)	(3) (2)
RANGE																
TRAINING LAND KM																

NOTES:

1. Embedded Trainer "Operations Training"
2. Embedded Trainer "Training Exercise"
3. JOINT TACTICAL GROUND STATION
4. SEE DA PAMPHLET 350-38 FOR AMMUNITION/PYROTECHNIC REQUIREMENT

ACRONYMS: MAPEX-MAP EXERCISE, TEWT-TACTICAL EXERCISE WITHOUT TROOPS, TOCEX-TACTICAL OPERATIONS CENTER EXERCISES, STAFFEX-STAFF EXERCISE, CPX-COMMAND POST EXERCISE, FCX-FIRE COORDINATION EXERCISE, STX-SITUATIONAL TRAINING, LOGEX-LOGISTICS EXERCISE, CFX-COMMAND FIELD EXERCISE, DEPEX-DEPLOYMENT EXERCISES, FTX-FIELD TRAINING EXERCISE, EXEVAL-EXTERNAL EVALUATION/ CTC-COMBAT TRAINING CENTER, JTX-JOINT TRAINING EXERCISE, CTX-COMBINED TRAINING EXERCISES

Figure B-4, Unit/Sustainment Training (page 4 of 6)

JOINT TACTICAL GROUND STATION GUNNERY TRAINING STRATEGY													
INDIVIDUAL	TABLE I	TABLE II	TABLE III										
CREW				TABLE IV	TABLE V								
PLATOON													
BATTERY													
BATTALION							TABLE VII	TABLE VIII	TABLE IX	TABLE X	TABLE XI	TABLE XII	LFX
CRITICAL GATE					TABLE IV						TABLE VIII		
REQUIREMENTS													
ACTIVE UNITS													
RESERVE UNITS													
RESOURCES													
OPTEMPO BASE EQUIP													
AMMUNITION													
TADSS													
RANGE													
TRAINING LAND													

Figure B-5, Unit/Sustainment Training (page 5 of 6)

TABLE	TASK	LEVEL	HOW	WHERE*	FREQUENCY
I	SYSTEM SKILLS	CREW MEMBER	HANDS ON JTAGS SYSTEM	IRP	TWICE WEEKLY
II	CREW DRILL TRAINING	CREW MEMBER	HANDS ON JTAGS SYSTEM	IRP	TWICE WEEKLY
III	AIR BATTLE MANAGEMENT	CREW MEMBER	JTAGS INSTR Embedded Training	CLASSROOM Embedded Training	TWICE WEEKLY MONTHLY
IV	CREW QUALIFICATION	SECTION	WRITTEN EXAM PRACTICAL EXAM	IRP	INITIAL 90 DAYS
V	AIR BATTLE MANAGEMENT	SECTION	EMBEDDED TRAINER	IRP/Embedded	WEEKLY
VI	DAYTIME MARCH ORDER & EMPLACE	SECTION	PRACTICAL	IRP/ LTA	WEEKLY
VII	PRACTICE ADT 5 & 6	CREW SECTION	PRACTICAL EXERCISE	IRP/LTA	90 DAYS
VIII	CREW QUALIFICATION	CREW SECTION	PRACTICAL EXERCISE	LTA	90 DAYS
IX	AIR BATTLE MANAGEMENT	CREW	EMBEDDED TRAINER	IRP	AS REQUIRED
X	6 & NIGHT- TIME & NBC	SECTION	PRACTICAL EXERCISE	IRP/LTA	180 DAYS
XI	PRACTICE ADT 9 & 10	SECTION	PRACTICAL EXERCISE	IRP/LTA	180 DAYS
XII	CREW QUALIFICATION	SECTION	PRACTICAL EXERCISE	LTA	360 DAYS

*NOTES:

IRP - INITIAL READY POSITION

LTA - LOCAL TRAINING AREA

Figure B-6, Unit/Sustainment Training (page 6 of 6)

RESOURCES SUMMARY																
SYSTEM: Joint Tactical Ground Station (JTAGS)				DATE: 22 Jul 1996												
PERSONNEL																
	95				FY 96				FY 97				TOTALS			
PERSONNEL	A R M Y	U S A F	N A V Y	T O T A L	A R M Y	U S A F	N A V Y	T O T A L	A R M Y	U S A F	N A V Y	T O T A L	A R M Y	U S A F	N A V Y	T O T A L
CIVILIAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MILITARY	38	0	7	45	38	0	7	45	78	0	19	97	154	0	33	187
OFFICERS	3	0	1	4	3	0	1	4	8	0	2	10	14	0	4	18
ENLISTED	35	0	6	41	35	0	6	41	70	0	17	87	140	0	29	169
RESOURCES																
TRAVEL/PER DIEM	15K	15K			15K			15K			15K					
CONTRACTOR SUPPORT	TBD- TIA				TBD-CTEA											
FACILITIES	TBD	TBD			TBD			TBD			TBD					
EQUIPMENT REQUIREMENTS	14K	14K			14K			14K			14K					
AMMO	N/A	N/A			N/A			N/A			N/A					
PRINTING	10K	10K			10K			10K			10K					
	RATIO	EQUIPMENT			TEST SETS											
USADASCH TOTALS:	6 TO 1	TBD			TBD											
14E AOC Change	6 TO 1	TBD			TBD											
140A ASI	6 TO 1	TBD			TBD											
25LXX ASI	6 TO 1	TBD			TBD											

Figure C-1, Resource Summary

SYSTEM MILESTONE SCHEDULE SHEET (TRADOC REG 351-9)		PAGE 1 OF PAGES		REQUIREMENTS CONTROL SYMBOL ATTG-55
SYSTEM Joint Tactical Ground Station (JTAGS)		DA CATEGORY ACAT-III		OFFICE SYMBOL ATSA-DTH-G
				AS OF DATE 06 Sep 95
POINTS OF CONTACT		NAME	OFFICE SYMBOL	TELEPHONE
MATERIEL COMMAND				
TRADOC PROPONENT		Don Woolever		DSN 680-2171
TSM:		Pete Olson	ATSA-TSM-G	DSN 978-6041
CD:		Gary Barnard	ATSA-CDS	DSN 978-5012
TD:		CW2 Macias	ATSA-DT-P	DSN 978-2545
ASSOC SCHOOLS:				
CD:			AXSK-CMA	DSN 978-2282
TD:			ATSK-CMA	DSN 788-2981
ITEM	DATE	RESPONSIBLE AGENCY/POC		TELEPHONE
MNS	Nov 91	USAADASCH, DCD/ATSA-CD,		
SMMP:	Sep 94	USAADASCH, DCD/ATSA-CDM-L,		DSN 978-2623/0707
ORD:	Nov 93	USAADASCH, DCD/ATSA-CD, Evon Limas		DSN 978-5309
ILSP:	Apr 95	JTAGS PO SFAC-MD-JTG-P, Stan Dean		DSN 778-1147
TTSP:	May 95	USAADASCH, CATD/ATSA-TAC, /Karol Scott		DSN 978-1830
QQPRI:	TBD	CAC, ATZL-CDF-C, Nancy Martin		DSN 645-8032
BOIP:	TBD	CAC, ATZL-CDF-C, Barry Rimmey		DSN 552-8557
NETP:	Aug 94	AMC, AMSMI-MMC-ME-N, Malcomb Ray		DSN 746-1629
STRAP:	Jan 94	USAADASCH, DOTD/ATSA-DT-P, CW2 Macias		DSN 978-1678
TEMP	Jan 95	USAADASCH, DCD, ATSA-CDE, Isiah Gordon		DSN 978-5619

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Figure D-1, System Milestone Schedule Sheet A

System Milestone Schedule - Sheet B

SYSTEM MILESTONE SCHEDULE - SHEET B (TRADOC REG 351-9)					PAGE 1 OF 13 PAGES					REQUIREMENTS CONTROL SYMBOL ATTG-55											
SYSTEM: Joint Tactical Ground Station					TRADOC SCHOOL: USAADASCH					AS OF DATE: 22 Jul 96											
COMPLETED BY: Cw2 Macias					OFFICE SYMBOL: ATSA-DT-P					TELEPHONE: DSN 978-1678/6015											
TRAINING PACKAGE ELEMENT/PRODUCT: Individual Training																					
LEGEND:		MILESTONE BY QUARTER																			
		FY 95				FY 96				FY 97				FY 98				FY 99			
		1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
1. Initial ITP completed and submitted.									X												
2. Analysis completed.																					
3. Annotated Task List completed and submitted.						X															
4. CAD.									X												
5. Training Program Worksheet (TPW) completed and submitted.																					
6. ITP completed and submitted.									X												
7. POI completed and submitted.											X										
8. Resident Course start date.													X								
NOTES: Use one sheet for each Training Element or Product and use as many sheets as required for a complete list. See TRADOC Reg 351-9.																					
COMMENTS: (continue on reverse side if necessary) Based on FUE of FY97 for JTAGS. N/A Training conducted by USAF.																					

SYSTEM MILESTONE SCHEDULE - SHEET B (TRADOC REG 351-9)										PAGE 2 OF 13 PAGES				REQUIREMENTS CONTROL SYMBOL ATTG-55										
SYSTEM: Joint Tactical Ground Station										TRADOC SCHOOL: USAADASCH				AS OF DATE: 24 Apr 95										
COMPLETED BY: CW2 Macias										OFFICE SYMBOL: ATSA-DT-P				TELEPHONE: DSN 978-1678/6015										
TRAINING PACKAGE ELEMENT/PRODUCT: Army Correspondence Course Program (ACCP)																								
LEGEND:					MILESTONE BY QUARTER																			
					FY 93				FY 94				FY 95				FY 96				FY 97			
					1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
1. Requirements identified/submitted for approval.																								
2. Requirements approved by USATC/TRADOC.																								
3. Development initiated.																								
4. Advance breakdown sheets submitted.																								
5. Camera Ready Mechanical (CRMs) submitted.																								
6. Subcourse material ready for distribution.																								
NOTES: Use one sheet for each Training Element or Product and use as many sheets as required for a complete list. See TRADOC Reg 351-9.																								
COMMENTS: (continue on reverse side if necessary)																								
N/A																								

SYSTEM MILESTONE SCHEDULE - SHEET B (TRADOC REG 351-9)										PAGE 3 OF 13 PAGES					REQUIREMENTS CONTROL SYMBOL ATTG-55									
SYSTEM: Joint Tactical Ground Station										TRADOC SCHOOL: USAADASCH					AS OF DATE: 06 Sep 95									
COMPLETED BY: George Guzman										OFFICE SYMBOL: ATSA-DT-P					TELEPHONE: 978-1678/6015									
TRAINING PACKAGE ELEMENT/PRODUCT: Army Training Literature Program (ATLP)																								
LEGEND:					MILESTONE BY QUARTER																			
					FY 93				FY 94				FY 95				FY 96				FY 97			
					1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
1. Requirements identified.																								
2. Draft Army Training Literature Program (ATLP) changes validated.															X									
3. Field Manual (FM) outlines approved.													X											
4. Coordinating draft completed.															X									
5. Comprehensive dummy completed.																	X							
6. Print request initiated.																		X						
7. Approved CRM and comprehensive dummy submitted.																		X						
8. Printing and distribution completed.																				X				
NOTES: Use one sheet for each Training Element or Product and use as many sheets as required for a complete list. See TRADOC Reg 351-9.																								
COMMENTS: (continue on reverse side if necessary)																								
Fmxxx for JTAGS.																								

SYSTEM MILESTONE SCHEDULE - SHEET B (TRADOC REG 351-9)										PAGE 6 OF 13 PAGES					REQUIREMENTS CONTROL SYMBOL ATTG-55									
SYSTEM: Joint Tactical Ground Station										TRADOC SCHOOL: USAADASCH					AS OF DATE: 22 Jul 96									
COMPLETED BY: CW2 Macias										OFFICE SYMBOL: ATSA-DT-P					TELEPHONE: 978-1678/6015									
TRAINING PACKAGE ELEMENT/PRODUCT: Training Devices																								
LEGEND:					MILESTONE BY QUARTER																			
					FY 93				FY 94				FY 95				FY 96				FY 97			
					1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
1. FEA reviewed/high risk, hard to train tasks identified.																								
2. Device concept validated.																								
3. Need for training device identified in Training Device Needs Statement (TDNS).																								
4. Requirements and training device strategy incorporated into STRAP.															X									
5. Analytical justification via CTEA as input to COEA completed.																								
6. Appendix E to ORD developed.								X																
7. Device effectiveness validated.																								
8. MOS specific milestones/requirements developed and incorporated in ITS.																								
9. Institutional Simulator required																						X		

NOTES: Use one sheet for each Training Element or Product and use as many sheets as required for a complete list. See TRADOC Reg 351-9.

COMMENTS: (continue on reverse side if necessary)

Training devices identified to date are the JTAGS Embedded Trainer for sustainment training and a simulator for institutional training.

SYSTEM MILESTONE SCHEDULE - SHEET B (TRADOC REG 351-9)										PAGE 7 OF 13 PAGES					REQUIREMENTS CONTROL SYMBOL ATTG-55									
SYSTEM: Joint Tactical Ground Station										TRADOC SCHOOL: USAADASCH					AS OF DATE: 24 Apr 95									
COMPLETED BY: CW2 Macias										OFFICE SYMBOL: ATSA-DT-P					TELEPHONE: 978-1678/6015									
TRAINING PACKAGE ELEMENT/PRODUCT: DA Audio Visual Production Program (DAAVPP)																								
LEGEND:					MILESTONE BY QUARTER																			
					FY 93				FY 94				FY 95				FY 96				FY 97			
					1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
1. FEA reviewed/high risk tasks and jobs identified.																								
2. Requirements tentatively validated in storyboard format.																								
3. DAAVPP requirements submitted to USATSC.																								
4. Requirements approval by DA.																								
5. Production and distribution initiated.																								
6. Distribution completed.																								
NOTES: Use one sheet for each Training Element or Product and use as many sheets as required for a complete list. See TRADOC Reg 351-9.																								
COMMENTS: (continue on reverse side if necessary)																								
N/A																								

SYSTEM MILESTONE SCHEDULE - SHEET B (TRADOC REG 351-9)										PAGE 8 OF 13 PAGES					REQUIREMENTS CONTROL SYMBOL ATTG-55						
SYSTEM: Joint Tactical Ground Station										TRADOC SCHOOL: USAADASCH					AS OF DATE: 22 Jul 96						
COMPLETED BY: CW2 Macias										OFFICE SYMBOL: ATSA-DT-P					TELEPHONE: DSN 978-1678/6015						
TRAINING PACKAGE ELEMENT/PRODUCT: Facilities																					
LEGEND:		MILESTONE BY QUARTER																			
		FY 93				FY 94				FY 95				FY 96				FY 97			
		1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
		1. FEA revised/range and facility requirements identified.																			
		2. Construction requirements submitted to MACOM.																			
		3. Directorate of Engineering and Housing (DEH) development or construction requirements completed.																			
		4. Requirements validated and updated.																			
		5. Supportive developments/requirements identified and availability or development coordinated.																			
		6. Installation requirements submitted to MACOM with other construction requirements.																			
		7. Refined construction requirements/range criteria forwarded to MACOM.																			
		8. Construction initiated.																			
NOTES: Use one sheet for each Training Element or Product and use as many sheets as required for a complete list. See TRADOC Reg 351-9.																					
COMMENTS: (continue on reverse side if necessary)																					

SYSTEM MILESTONE SCHEDULE - SHEET B (TRADOC REG 351-9)										PAGE 9 OF 13 PAGES					REQUIREMENTS CONTROL SYMBOL ATTG-55									
SYSTEM: Joint Tactical Ground Station										TRADOC SCHOOL: USAADASCH					AS OF DATE: 24 Apr 95									
COMPLETED BY: CW2 Macias										OFFICE SYMBOL: ATSA-DT-P					TELEPHONE: DSN 978-1678/6015									
TRAINING PACKAGE ELEMENT/PRODUCT: Training Ammunition																								
LEGEND:		MILESTONE BY QUARTER																						
		FY 93				FY 94				FY 95				FY 96				FY 97						
		1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q			
1. FEA reviewed/ammunition identified.																								
2. Tentative validation of ammunition requirements.																								
3. Requirements included in TDR/ORD.																								
4. Ammunition item developed.																								
5. Validate/Test.																								
6. Ammunition requirements in ITP.																								
7. Requirements provided to appropriate installation/MACOM manager.																								
8. Requirements included in DA PAM 350-38, Standards In Weapons Training.																								
9. Production.																								
NOTES: Use one sheet for each Training Element or Product and use as many sheets as required for a complete list. See TRADOC Reg 351-9.																								
COMMENTS: (continue on reverse side if necessary)																								
N/A																								

COORDINATION SUMMARY

SYSTEM: JTAGS

DATE: 07 Sep 1995

AGENCIES	COMMENTS SUBMITTED	COMMENTS ACCEPTED	COMMENTS NOT ACCEPTED
ATSA-ETO-P	6	6	
CTCD	Concur		
ATTG-UC	17	14	3
ATCD-MD	Concur		
ITD-TRG	Concur	3	
ATTG-CR	2	2	
Naval Space Command	3	3	
SFAE-MD-JTG	Concur	Concur	
SFAE-MD-JTG-P	11	11	
ADCS-T	Concur		
MOSC-SL-M	26	26	

NONACCOMMODATION COMMENTS

Comment: Relevant echelons within the theater of operations should be identified.

Rationale: Guidance from TRADOC Reg 351-9 requires a brief system description in Paragraph one. The Operations Concept for JTAGS defines comment throughly.

Comment: Users are undefined.

Rationale: Users are defined in Operations Concept.

Comment: Rationale for USAF teaching a USA/USN system is absent.

Rationale: Due to low density of JTAGS and the UASF already conducting ALERT training it was not cost effective for the USA to develop a training program within the USAADASCH institution. Memorandum of agreement was signed by participating services.

LIST OF REFERENCES

SYSTEM: JTAGS

DATE: 01 Dec 1993

1. Joint Tactical Ground Station Operational Requirements Document (ORD)
8 Nov 93.
2. System Manprint Management Plan (SMMP) for Joint Tactical Ground
Station (JTAGS) Sep 94.
3. Integrated Logistics Support Plan (ILSP) for Joint Tactical Ground
Station (JTAGS) March 1993.
4. Operational Requirements Document (ORD) for HATMD 22 Jan 1992.

GLOSSARY

ACCP	Army Correspondence Course Program
ADA	Air Defense Artillery
ADCATT	Air Defense Combined Arms Tactical Training
AIT	Advanced Individual Training
AMC	United States Army Materiel Command
AMIM	Army Modernization Information Memorandum
AOC	Area of Concentration
ARCCC	Army Component Command Center
ARTEP	Army Training and Evaluation Plan
ASI	Additional Skills Identifier
ATLP	Armywide Training Literature Program
ATP	Acceptance Test Program
ATSC	Army Training Support Center
BLT	Branch Liaison Team
BM/C3	Battle Management/Command, Control and Communications
C3	Command, Control and Communications
C3I	Command, Control, Communications and Intelligence
CAD	Course Administrative Data
CD	Combat Development
CINCSPACE	Commander in Chief Space
CFX	Command Field Exercise
CMT	Common Military Tasks
COEA	Cost and Operational Effectiveness Analysis

COFT	Conduct of Fire Trainer
CONUS	Continental United States
CPX	Command Post Exercise
CT	Collective Training
CTC	Combat Training Center
CTEA	Cost and Training Effectiveness Analysis
CTX	Combined Training Exercise
CRM	Camera Ready Mechanical
CSA	Chief of Staff of the Army
CTC	Combat Training Center
CTEA	Cost and Training Effectiveness Analysis
CTT	Common Task Training
CTX	Combined Training Exercises
DA	Department of the Army
DAAVPP	DA Audio Visual Production Program
DAC	Department of the Army Civilian
DB	Drill Books
DEPEX	Deployment Exercise
DCD	Directorate of Combat Developments
DTT	Doctrine and Tactical Training
EOD	Explosive Ordinance Disposal
EODT	Explosive Ordinance Disposal Trainer
EXEVAL	External Evaluation
FEA	Front End Analysis

FCX	Fire Coordination Exercise
FM	Field Manual
FOE	Follow-On Evaluation
FTX	Field Training Exercise
FUE	First Unit Equipped
GBI	Ground Based Interceptor
GBR	Ground Based Radar
GPALS	Global Protection Against Limited Strikes
GEPS	Ground Entry Points
HE	Human Engineering
IAW	In Accordance With
ICS	Interim Contractor Support
ICW	Interactive Courseware
ICBMs	Intercontinental Ballistic Missiles
I&KP	Instructor and Key Personnel
ILSMP	Integrated Logistics Support Management Plan
IPR	In Process Review
ITP	Individual Training Plan
ITS	Integrated Training Schedule
IVD	Interactive Video Disk
JTX	Joint Tactical Exercise
LCMM	Life Cycle System Management Model
LDR	Leader
LOGEX	Logistics Exercise

LRU	Line Replacement Unit
LSA	Logistics Support Analysis
LTA	Local Training Area
MACON	Major Army Command
MANPRINT	Manpower and Personnel Integration
MAPEX	Map Exercise
MATDEV	Materiel Developer
METL	Mission Essential Task List
MPTR	Multipurpose Training Range
MOS	Military Occupational Specialty
MNS	Mission Needs Statement
MRT	Missile Round Trainer
MTP	Mission Training Plan
MQS	Military Qualifications Standards
NCOPD	Non Commissioned Officer Professional Development
NET	New Equipment Training
NETT	New Equipment Training Team
NETP	New Equipment Training Plan
NMIBT	New Materiel Information Briefing Team
NTB	National Test Bed
OBC	Officer Basic Course
OPTEMPO	Operating Tempo
OPD	Officer Professional Development
ORD	Operational Requirements Document

ORE	Operational Readiness Exercise
OSHA	Occupational Safety and Health Administration/Act
OTRS	Operational Test Readiness Statement
P3I	Pre-Planned Product Improvement
PFTEA	Post Field Training Effectiveness Analysis
PM	Program Manager
POI	Program of Instruction
PPBES	Program Planning, Budgeting and Execution System
QQPRI	Qualitative and Quantitative Personnel Requirements System
RE	Readiness Exercise
RSP	Render Safe Procedures
RFP	Request for Proposal
R&F	Reporting and Fusing
SAT	System Approach to Training
SDT	Self Development Test
SLBM	Sub Launched Ballistic Missile
SMMP	System Manprint Management Plan
SSEB	Source Selection Evaluation Board
SSI	Special Skill Identifier
STAFFEX	Staff Exercise
STP	Soldier Training Publication
STX	Situational Training Exercise
SWOTC	Senior Warrant Officer Training Course
TAD	Target Audience Description

TADSS	Training Aids, Devices, Simulations and Simulators
TBD	To Be Determined
TD	Training Development
TDNS	Training Device Needs Statement
TDR	Training Device Requirement
TEMP	Training and Evaluation Master Plan
TEWT	Tactical Exercise Without Troops
THAAD	Theater High Altitude Area Defense
TIA	Training Impact Analysis
TMD	Theater Missile Defense
TOC	Tactical Operations Center
TOCEX	Tactical Operations Center Exercise
TPT	Troop Proficiency Trainer
TPW	Training Program Worksheet
TRAC	TRADOC Analysis Command
TRADOC	United States Army Training and Doctrine Command
TSM	TRADOC System Manager
TTSP	Training Test Support Package
VEDS	Virtual Environment Display System
UMT	Unit Maintenance Trainer
USAADASCH	United States Army Air Defense Artillery School
USAAK	United States Army Kwajalein Atoll
USAMICOM	United States Army Missile Command

USAOMMCS	United States Army Ordinance Missile and Munitions Center and School
USATSC	United States Army Training Support Center
USASDC	United States Army Strategic Defense Command
WOTTC	Warrant Officer Technical Certification Course

INSTITUTIONAL TRAINING SYSTEM

1. COURSE: JTAGS OPERATOR COURSE

TRAINING STRATEGY: This course prepares soldiers for their duty assignment in a JTAGS unit. The training will teach the operator the tactical software and the operator maintenance required to maintain the equipment. Course includes necessary knowledge to understand information processed/disseminated by the JTAGS system. It covers topics such as missile characteristics, system initialization, console operations, communications, sensor input, march order and emplacement, fault detection, fault isolation and parts location.

LOCATION: FORT BLISS, TEXAS

LESSON PLANS:

COURSE START DATE: 4 QTR 97

	FY97	FY98	FY99	FY01
CLASSES/YR	6	6	6	6
STUDENT LOAD/YR	30	30	30	30

TRAS DOCUMENT:

ITP 3 QTR 96
CAD 4 QTR 96
POI 3 QTR 96

TRAINING SUPPORT REQUIRED:

Course length to be adjusted based on experience learned from NET.